## ABSTRACT

Hydrophobic silica fine powder is produced by pyrolyzing a silane compound to form a silica fine powder and hydrophobizing the silica fine powder with an organohalosilane in a fluidization vessel. Hydrophobized silica fine powder which flies out of the fluidization vessel is collected with a cyclone and bag filter which are held at a temperature of 100-500°C. An apparatus for carrying out the process is also provided. Under simple controlled conditions that involve holding the cyclone and bag filter for recovering fugitive silica from the fluidization vessel to temperatures of 100-500°C, the method and apparatus are able to recover essentially 100% of 15 fugitive silica, thus increasing yield of the product and alleviating the burden on waste gas treatment.